Abstract of the Disclosure

Systems and methods for automatically adjusting the alignment of high-side and low-side pulse width modulated signals to improve dead time and shoot-through conditions. In one embodiment, a system includes a digital amplifier controller, an amplifier output stage coupled to the controller and configured to receive audio signals from the controller, and one or more sensors coupled to the output stage. The sensors are configured to detect and/or measure various parameters, such as shoot-through current and distortion, which are associated with the operation of the output stage. The sensors provide feedback to an internal processor or modulator of the controller, which then adjusts the timing of the high-side and low-side signals to improve the operating conditions of the output stage by minimizing shoot-through current and/or distortion.